



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,347	02/22/2005	Tomas Andel	J337-005 US	3930
21706 7590 07/03/2008 NOTARO AND MICHALOS 100 DUTCH HILL ROAD SUITE 110 ORANGEBURG, NY 10962-2100				
EXAMINER				
BOES, TERENCE				
ART UNIT		PAPER NUMBER		
3682				
MAIL DATE		DELIVERY MODE		
07/03/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/525,347

Applicant(s)

ANDEL, TOMAS

Examiner

TERENCE BOES

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 May 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. Claim 4 objected to because of the following informalities: the reference character "17" should be enclosed in parentheses. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 8, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols US 2003/0199351 in view of Livermore US 1,115,557 and further in view of Woolnough et al.

Nichols discloses:

- a central portion (30) made from light metal alloy, to which a peripheral toothed portion (20) made from ferrous alloy is joined,
- where a thickness at least over the joining area, is decreased by 10 to 60%, in relation to full thickness of said toothed peripheral portion (20, 22), and a thickness of a bottom of the pocket recesses (32) in the central portion is decreased by 20 to 70%, in relation to full thickness of the central portion of the sprocket (see mating flange portions 22 and 32).
- a side clearance between the radial beams of the peripheral toothed portion and side walls of the pocket recesses of the central portion is from 0.5 to 10% of the rivet shank diameter (product by process claims are not

limited to the manipulations of the recited steps, only the structure implied by the steps (see MPEP 2113)).

- lightening openings (see figure 2, 6 lightening openings are shown circumferentially within 30) are created in the central portion of the sprocket.
- at least a circumferential strip (see circumferential strip containing holes 33) is created between said lightening openings and the outer circumference of the central portion, where the thickness of said strip, in radial direction, is at least 50% of the full thickness of said central portion (thicknesses can be seen in figures 2 and 2A).
- a wall is created between the lightening openings and the pocket recesses of the central portion, where a height of said wall is the same as the full thickness of said central portion and a width of said wall is at least 50% of the full thickness of said central portion (see side walls of lightening openings)

Regarding functional language, the examiner notes while features of an apparatus may be recited either structurally or functionally, claims directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. The references disclose all claimed structural limitations and therefore anticipates the claim. See MPEP 2114).

Nichols does not disclose rivets or radial beams, with side walls, integral with a toothed portion being overlapped across bottoms of pocket recesses with circumferential walls, and where a thickness of radial beams, at least over the joining area, is decreased by 10 to 60%, in relation to full thickness of said toothed peripheral portion, and a thickness of a bottom of the pocket recesses in the central portion is decreased by 20 to 70%, in relation to full thickness of the central portion of the sprocket

Livermore teaches rivets (3) and radial beams, with side walls, (9) integral with a toothed portion being overlapped across bottoms of pocket recesses with circumferential walls (14), and where a thickness of radial beams, at least over the joining area, is decreased by 10 to 60%, in relation to full thickness of said toothed peripheral portion (see figure 6, C2/L60-65), and a thickness of a bottom of the pocket recesses in the central portion is decreased by 20 to 70%, in relation to full thickness of the central portion of the sprocket (see figure 6, C2/L60-65) for the purpose of preventing rivet wear (C1-2/L54-57).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Nichols and provide rivets and radial beams, with side walls, integral with a toothed portion being overlapped across bottoms of pocket recesses with circumferential walls, and where a thickness of radial beams, at least over the joining area, is decreased by 10 to 60%, in relation to full thickness of said toothed peripheral portion, and a thickness of a bottom of the pocket recesses in

the central portion is decreased by 20 to 70%, in relation to full thickness of the central portion of the sprocket, as taught by Livermore, for the purpose of preventing rivet wear.

Nichols in view of Livermore does not disclose a plurality [of beams and recesses].

Woolnough et al. teaches a plurality (see multiple instance of 8) for the purpose of providing a simple solid and efficient connection (C2/L54-65).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Nichols in view of Livermore and provide a plurality (of beams and recesses), as taught by Woolnough et al., for the purpose of providing a simple solid and efficient connection.

3. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols US 2003/0199351 in view of Livermore US 1,115,557 and further in view of Woolnough et al. as applied to claim 2 above, and further in view of Gapp et al. US 3,685,391.

Nichols in view of Livermore discloses all of the claimed subject matter as described above. Nichols in view of Livermore does not disclose titanium alloy rivets.

Gapp et al. teaches titanium alloy rivets (see abstract, figures 1-9) for the purpose of increasing strength (see abstract).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Nichols in view of Livermore and provide titanium alloy rivets, as taught by Gapp et al., for the purpose of increasing strength.

Response to Arguments

4. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERENCE BOES whose telephone number is (571)272-4898. The examiner can normally be reached on Monday - Friday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. B./

Examiner, Art Unit 3682

7/1/08

/Richard WL Ridley/

Supervisory Patent Examiner, Art Unit 3682